In the Specification:

Please replace the paragraph that begins on Page 1, line 5 and carries over to Page 2, line 2, with the following marked-up replacement paragraph:

The present invention is related to U. S. Patent (serial number 10/077,547
10/), entitled "Programmatically Deriving Street Geometry from Address Data"; U. S.
Patent (serial number 10/077,080 10/), entitled "Programmatically Computing
Street Intersections Using Street Geometry"; and U. S. Patent (serial number
10/077,079 10/), entitled "Adapting Point Geometry for Storing Address Density", each
of which was filed concurrently herewith and which is hereby incorporated herein by reference.
These patents are commonly assigned to the International Business Machines Corporation
("IBM"), and are referred to hereinafter as "the related inventions".

Please replace the paragraph that begins on Page 6, line 17 and carries over to Page 7, line 3, with the following marked-up replacement paragraph:

Another example of a spatially-enabled database is the IBM Informix® Spatial DataBlade® product. This database is described in "SDE Version 3.0.2 for Informix Dynamic Server, Spatial DataBlade Reference Manual", published on the Internet at location http://www.esri.com/software/sde/pdfs/datablade.pdf. Spatial DataBlade also supports the geometric types shown in Fig. 1, and the WKT, WKB, and ".shp" shape formats. This Reference Manual is referred to hereinafter as the "Spatial DataBlade® Reference Manual". ("Informix" and "DataBlade" are registered trademarks of IBM.) **

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Please replace the paragraph on Page 7, lines 4 - 9, with the following marked-up replacement paragraph:

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While WKT is an open, interchangeable data format, it may be considered as a relatively "artificial" or "contrived" format for source data. That is, all geometric data that is expressed in WKT format must be specified using particular syntax conventions. To represent the point having an x-coordinate of 12 and y-coordinate of 25, commonly denoted as (12,25), for example, the following WKT syntax is used:

'point (12 25 15)' *

Please replace the paragraph on Page 20, lines 14 - 15, with the following marked-up replacement paragraph:



The value of the starting point, envelope, linestring, and PointZM Point ZM columns are computed while processing the input file, as described in the related inventions.

Please replace the paragraph on Page 29, lines 6 - 15, with the following marked-up replacement paragraph:



When the criteria tested at Block 680 are met, then control reaches Block 685, which tests to see if the street on which the new origin point O' lies intersects the street on which the destination point D is located. Preferred embodiments use the "street_id" value for the destination street to locate its matching row in the intersection table, if that row has not yet been located (see the discussion of Block 625, above). This row is then inspected to determine whether the new origin point's street has an entry in the "intersect_id" column; if so, then these

A5 Concle are intersecting streets, and the test in Block 685 has a positive result. (Alternatively, the street_id for the street on which origin point O' is located may be used to search the intersection table to find the matching row, and the values of the "intersect_id" column may be inspected to see if the street_id for the D's street is contained therein.)

Please replace the paragraph that begins on Page 31, line 9 and carries over to Page 32, line 14, with the following marked-up replacement paragraph:

Fig. 8 illustrates a sample networking environment in which the present invention may

be used advantageously. As shown therein, a user of a handheld computing device 810 may request driving directions (or other types of directions or another type of path, equivalently) by interacting with an application program that implements of the present invention, where this program operates on the server side of the networking environment. For example, the handheld computing device 810 may establish a wireless connection 815 into a wireless network 820, where this path then passes through a wireless-to-wired gateway or network 825 and then through the Internet 830. The connection may then enter an intranet 835 which contains an application server 840 from which the application is served. In the sample environment of Fig. 8, the application server 840 is illustrated as a WebSphere® server from IBM. Suppose device 810 hosts a query application which establishes a connection to a JavaTM servlet executing on application server 840. For example, a user of device 810 might request computation of a path from his/her current location to a restaurant serving pizza, where the restaurant is first to be

The Cart

location. (One type of information that might be stored in points of interest table 270 is names of

located by performing a search of all pizza restaurants within a one mile radius of this current

application server 840 may forward 845 a request to DB2 server 850, which may store a spatiallyenabled database used by the present invention. DB2 server 850 then retrieves data for
responding 845 to device 810. The implementation of the present invention, which computes a
path to this restaurant, may execute on DB2 server 850, or on another device on which the
operations described herein can be carried out. One manner in which the computed path can be
delivered to the handheld device 810 is by creating a HyperText Markup Language ("HTML")
document containing textual street name information. In addition to, or instead of, this textual
information, a graphical depiction may be provided which shows the street segments of the

restaurants and the type of food they serve. The built-in "ST_Buffer" function may be used to

computed path. ("WebSphere" is a registered trademark of IBM. "Java" is a trademark of Sun

determine the one-mile radius of a geographical point.) Upon receiving the user's request,

Microsystems, Inc.)